

MINIMUM CRITERIA DETERMINATION CHECKLIST

TIP Project No.: U-5747

State Project No.: 50167.1.1

Project Location: McCrimmon Parkway (S.R.1635) from west of Davis Drive (S.R. 1613) to Perimeter Park Drive in Morrisville, Wake County (see Figure 1).

Project Description: Project U-5747 proposes to improve McCrimmon Parkway from west of Davis Drive to Perimeter Park Drive. The existing roadway will be upgraded to a 4-lane road with a 23-foot landscaped median, bike lanes on both sides, a 5-foot wide sidewalk on the south side and an 8-foot wide sidewalk on the north side. The proposed median will include breaks at the full movement cross street intersections and the Bexley Park Apartments community in addition to two leftovers at the Berkshires at Town Hall Commons and Broadstone Trailside communities.

The project also proposes to build a grade separation which will carry McCrimmon Parkway over N.C. 54 and the Norfolk Southern Railway (NS)/North Carolina Railroad (NCRR). A new-location loop road in the southeast quadrant of the McCrimmon Parkway crossing over N.C. 54 (behind the Sheetz gas station) will maintain a connection between McCrimmon Parkway and N.C. 54. The Davis Drive intersection is proposed to be upgraded to a partial Continuous Flow Intersection (CFI). The Church Street intersection is also proposed to be upgraded by adding an exclusive right-turn lane on Church Street in the northbound direction and a westbound right-turn slip lane on McCrimmon Parkway. The proposed design and environmental features along the corridor are shown on Figures 2-2H.

The purpose of this project is to reduce congestion along McCrimmon Parkway from west of Davis Drive to Perimeter Park Drive. Based on traffic volumes projected in the *U-5747 and U-5750 Traffic Forecast Memorandum* (April 2018), the intersections of McCrimmon Parkway with N.C. 54, Church Street, and Davis Drive are congested today and operate at level of service (LOS) F, C, and F respectively in the PM peak hour. As traffic volumes increase through 2040, these locations are anticipated to operate at LOS F, E, and F respectively. A secondary purpose is to improve safety along this corridor. The historic crash rate on McCrimmon Parkway between May 1, 2012 and April 30, 2017 is higher than the statewide critical crash rate (437.09 vs. 357.91 crashes per million vehicle miles traveled) as noted in the *Project U-5747 Crash Analysis Report* (June 2018). One fatal crash was also reported during this time frame. This project will also improve mobility for bicyclists and pedestrians through the corridor by providing multi-modal facilities.

This project is included in the *Morrisville Transportation Plan* (2009) in the 2018-2027 NCDOT State Transportation Improvement Program (STIP) and is scheduled to begin right-of-way in fiscal year 2020 and construction in fiscal year 2021. The estimated cost in the STIP includes \$1,800,000 for project development and design; \$3,800,000 for

property acquisition; and \$30,600,000 for construction and utility relocation with a project total of \$36,200,000.

Anticipated Permit or Consultation Requirements: A Section 404 Nationwide Permit (NWP) 14 and Section 401 Water Quality Certification (WQC) 4135 are anticipated based on the level of anticipated impacts to jurisdictional resources.

Special Project Information:

Alternatives

Project U-5747 proposes to widen McCrimmon Parkway to four lanes and add turn lanes at several intersections. It also proposes to widen Davis Drive from four to six lanes from south of Parkside Valley Drive to south of Chessridge Way (a distance of approximately 2,500 feet) to increase capacity through the intersection. However, even with these improvements, a conventional intersection with dual left-turn lanes on all approaches at McCrimmon Parkway and Davis Drive would be expected to operate at an unacceptable level of service (LOS) in design year 2040. Instead, a partial continuous flow intersection (CFI) is proposed at this intersection (see Figures 2B and 2C). This design was selected due to the combination of improved traffic operations (shown in **Table 1**) with lower right-of-way impacts compared to other potential alternatives (quadrant loop, superstreet, median U-turn, full CFI, or interchange).

Table 1: Traffic Capacity Analysis for Alternatives for McCrimmon Parkway at Davis Drive Intersection

Condition	AM Peak-Hour LOS (Delay)	PM Peak-Hour LOS (Delay)
McCrimmon Parkway at Davis Drive (Signalized)		
No Build (2016)	F (81.4)	F (87.6)
No Build (2040)	F (98.4)	F (140.5)
Build (2030) – <i>Full Movement</i>	D (47.8)	D (54.7)
Build (2030) – <i>Partial Continuous Flow Intersection (N-S)</i>	D (43.4)	D (37.2)
Build (2040) – <i>Full Movement</i>	E (60.3)	E (77.1)
Build (2040) – <i>Partial Continuous Flow Intersection (N-S)</i>	D (53.6)	D (44.8)

Project U-5747 also proposes a grade separation at the intersection of McCrimmon Parkway and N.C. 54 to improve safety and traffic operations for drivers, which will carry McCrimmon Parkway over the railroad and N.C. 54. Several potential options were considered to provide access between McCrimmon Parkway and N.C. 54, including connecting the new McCrimmon Parkway to the existing McCrimmon Parkway east of N.C. 54 to create a loop between the two roads, moving the McCrimmon Parkway/N.C. 54 intersection to the south to provide an extended loop road, and adding a second loop

on the north side of N.C. 54. A single loop in the southeast quadrant behind the Sheetz gas station utilizing the existing McCrimmon Parkway/N.C. 54 intersection was carried forward because it is anticipated to operate at an acceptable level of service through the design year while minimizing impacts to the surrounding natural resources and properties by retaining a portion of the McCrimmon Parkway currently under construction (see Figure 2G).

Water Resources

Seven jurisdictional streams (unnamed tributaries to Kit Creek and Crabtree Creek), eleven jurisdictional wetlands, and two ponds were identified within the study area, described in detail in the *Natural Resources Technical Report* (December 2018). Based on a 25-foot buffer of the proposed roadway slope stakes, no streams or ponds are anticipated to be directly impacted by the project. Impacts of less than 0.1 acres each are anticipated to wetlands WD, WG, and WH (See Figures 2D and 2F).

The project area is located within the Neuse River and the Jordan Lake Watershed of the Cape Fear River basins and are therefore subject to riparian buffer rules. Based on a 25-foot slope stake buffer and a 50-foot buffer of delineated water features, the project is anticipated to encroach into the buffers of two streams (SD and SA). As the designs progress, a buffer mitigation plan will be provided to the North Carolina Division of Water Resources (NCDWR) prior to approval of a Water Quality Certification.

There are no Outstanding Resource Waters (ORW), High Quality Waters (HQW), or water supply watersheds within or within 1.0 mile downstream of the study area. No streams within the study area or within 1.0 mile of the study area are identified on the North Carolina 2016 Final 303(d) list of impaired waters.

Federally Protected Species

There are six threatened and endangered federally protected species listed for Wake County by the United States Fish and Wildlife Service (USFWS) (updated June 27, 2018): Cape Fear shiner, red-cockaded woodpecker, dwarf wedgemussel, Tar River spinymussel, yellow lance, and Michaux's sumac. A review of the North Carolina Natural Heritage Program (NCNHP) database, updated July 2018, led to the following conclusions. Due to a lack of suitable habitat and the lack of known occurrences, it was determined that the proposed project will have "No Effect" on the Cape Fear shiner and the red-cockaded woodpecker. Due to the lack of known occurrences and the lack of observed individuals, it has been determined that the proposed project will have "No Effect" on Michaux's sumac. The NCNHP database records indicate no known occurrences of dwarf wedgemussel, Tar River spinymussel, or yellow lance within 1.0 mile of the study area. The biological conclusion for these three mussel species can be determined to be "No Effect" based on review of use of Appendix 2 in the Programmatic Biological Opinion—Bridge and Culvert Replacements/ Repairs/ Rehabilitations in Eastern North Carolina, NCDOT Divisions 1-8 (June 13, 2018). Atlantic pigtoe is currently listed as Proposed for Listing for Wake County; the Biological Conclusion for this species is currently "Unresolved."

The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is “May Affect, Likely to Adversely Affect.” The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Wake County, where U-5747 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

Project requirement for PBO compliance: After project completion, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres. This information should be submitted at:

[NCDOT Tree Clearing Reporting for NLEB Programmatic Biological Opinion Requirement](#)

In accordance with the Bald and Golden Eagle Protection Act, a desktop-GIS assessment was performed of the project study area, as well as the area within a 1.13 mile radius (1.0 mile plus 660 feet) of the project limits on August 7, 2018 using color aerials. Two bodies of water large enough or sufficiently open to be considered a potential feeding source were identified. A visual survey was conducted on May 15, 2018 and no nests or individuals were observed. A review of the NCNHP database (updated July 2018) revealed no known bald eagle within 1.0 mile of the study area.

Hazardous Materials

The NCDOT GeoEnvironmental Section performed a records search for the study area and identified three Underground Storage Tank (UST) facilities and one superfund site within the project area. An additional UST was identified in the NCDEQ database outside of the GeoEnvironmental pre-scoping report study area. Hazardous materials sites which are anticipated to have potential for impacts, based on the proposed slope stakes, are listed below in Table 2.

The GeoEnvironmental Section will coordinate with NCDEQ’s Division of Waste Management to manage the project’s impacts to the Koppers Superfund site. The Geotechnical Unit/GeoEnvironmental Section will further assess the affected properties for hazardous materials (Phase I and Phase II assessments) and make right-of-way acquisition recommendations prior to right-of-way authorization. Special consideration should be given if NCDOT intends to acquire right of way on a Superfund site. Should hazardous substance sites be discovered during construction activities, measures to minimize and/or mitigate potential impacts would be implemented. Contaminated material at hazardous levels that are anticipated to be encountered during construction will be managed by NCDOT. Non-hazardous contaminated materials will be addressed by a project special provision for the contractor.

Table 2: Hazardous Material Sites Anticipated to Have Potential for Impacts

Site #	Type	Facility ID	Name
1	Superfund	NCD 003 200 383	Koppers
3	UST	00-0-0000027353	J.F. Wilkerson Contracting Co.
4	UST	00-0-0000038504	Sheetz #525
5	UST	00-0-0000037525	Circle K

Cultural Resources

The State Historic Preservation Office (SHPO) had no comments on the proposed project in a response to the scoping packet dated April 28, 2017. NCDOT Cultural Resources Group concluded that no archaeological survey is required (September 10, 2018) and no historic architecture survey is required (August 3, 2018).

Indirect and Cumulative Effects

The project will not notably alter travel patterns, reduce travel time, affect access to properties in the area, or open areas for development or redevelopment. Due to its minimal transportation impact-causing activities, this project will neither influence nearby land uses nor stimulate growth. Access to existing sidewalks may be impacted during construction.

A Cumulative Effects Study of several projects in the Morrisville area was completed in June 2016 to examine the potential cumulative effects associated with this project as well as STIP Projects U-5811 (Aviation Parkway widening), U-5750 (N.C. 54 widening), U-5828 (McCrimmon Parkway Extension) and the Town of Morrisville's Morrisville-Carpenter Road (S.R. 3014) widening project. The study concluded that impacts to cultural resources are anticipated to be low, effects on minority populations are expected to be positive, and water quality and natural resources are heavily protected by local and statewide plans. Potential negative effects on community resources are possible.

Environmental Justice

Census data indicates a notable presence of minority populations meeting the criteria for Environmental Justice within the study area, and minority and low-income communities were observed during the field visit. While minority and low-income populations are present, no notably adverse community impacts are anticipated with this project; thus, impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community.

Census data indicates Asian/Pacific and Other Indo-European populations that meet or exceed the US Department of Justice Limited English Proficiency (LEP) Safe Harbor threshold within the DSA. Census data also indicates another Spanish language-speaking population that exceeds 50 persons within the DSA that may require language assistance.

Public Involvement

A public meeting was held at the Hope Community Church in Morrisville on November 8, 2018 with approximately 22 people in attendance. Postcards were mailed to property owners and tenants to advertise the meeting. A total of 7 written comments were received

during the comment period ending November 30, 2018. Comments were generally supportive of the project, with some specific concerns with driveway access to McCrimmon Parkway and right-of-way acquisitions.

The project team met with local officials in the Town of Cary, Town of Morrisville, and Wake County on November 8, 2018. A second presentation was made to the Morrisville Town Council on November 27, 2018 to provide additional information about the proposed design at the Davis Drive intersection. The Town Council agreed with the proposed CFI and asked to continue coordinating with NCDOT regarding landscaping as well as pedestrian access at this intersection.

PART A: MINIMUM CRITERIA***Item 1 to be completed by the Engineer.***

1. Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is not required?

YES☒**NO**☐

If yes, under which category?

(26): Implementation of any project which qualifies as a "categorical exclusion" under the National Environmental Policy Act by one of the Agencies of the U.S. Department of Transportation.

PART B: MINIMUM CRITERIA EXCEPTIONS***Items 2 – 4 to be completed by the Engineer.***

2. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts?
3. Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment?
4. Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the Department?

YES☐**NO**☒☐☒☐☒***Item 5-8 to be completed by Division Environmental Officer.***

5. Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value?
6. Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list?
7. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or ground water impacts?
8. Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits or shellfish, finfish, wildlife, or their natural habitats?

☐☒☐☒☐☒☐☒

PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS***Items 9- 12 to be completed by Division Environmental Officer.***

- | | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 9. Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the action require the placement of temporary or permanent fill in waters of the United States? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. Is the proposed action located in an Area of Environmental Concern, as defined in the Coastal Area Management Act? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Items 13 – 15 to be completed by the Engineer.

- | | | |
|--|--------------------------|-------------------------------------|
| 13. Does the project require stream relocation or channel changes? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|-------------------------------------|

Cultural Resources

- | | | |
|---|--------------------------|-------------------------------------|
| 14. Will the project have an “effect” on a property or site listed on the National Register of Historic Places? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

PART D:(To be completed when either category #8, 12(i) or #15 of the rules are used.)***Items 16- 22 to be completed by Division Environmental Officer.***

- | | |
|--|---|
| 16. Project length: | <u>2.0 miles</u> |
| 17. Right of Way width: | <u>100-120 feet</u> |
| 18. Project completion date: | <u>FY 2023</u> |
| 19. Total acres of newly disturbed ground surface: | <u>15.8 acres</u> |
| 20. Total acres of wetland impacts: | <u>0.2 acres</u> |
| 21. Total linear feet of stream impacts: | <u>0 feet</u> |
| 22. Project purpose: | <u>Reduce congestion and improve safety</u> |

Prepared by:

DocuSigned by:

Teresa Gresham, P.E.

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Teresa Gresham, P.E., Consultant Project Manager
Kimley-Horn and Associates, Inc.

12/19/2018

Date: _____

Reviewed by:

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Zahid Baloch

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Zahid Baloch, P.E., Division 5 Project Engineer
North Carolina Department of Transportation

12/19/2018

Date: _____

DocuSigned by:

Ben Upshaw

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Joey Hopkins, P.E., Division 5 Engineer
North Carolina Department of Transportation

12/19/2018

Date: _____

Project Commitments

Wake County Proposed Improvements to McCrimmon Parkway

WBS No. 50167.1.1

TIP No. U-5747

NCDOT Division Construction – Division of Waste Management

The GeoEnvironmental Section will coordinate with NCDEQ's Division of Waste Management to manage the project's impacts to the Koppers Superfund site.

NCDOT Geotechnical Unit/GeoEnvironmental Section

The Geotechnical Unit/GeoEnvironmental Section will further assess the potentially affected properties for hazardous materials (Phase I and Phase II assessments) and make design and right-of-way acquisition recommendations accordingly prior to final plans and right-of-way authorization. Contaminated material at hazardous levels that are anticipated to be encountered during construction will be managed by NCDOT. Non-hazardous contaminated materials will be addressed by a project special provision.

NCDOT Division 5 – Roadway Design

NCDOT will continue to coordinate with the Town of Morrisville regarding the design of the project including landscaping and pedestrian accommodations at the Davis Drive intersection as well as a cost-sharing agreement for bicycle and pedestrian facilities.

Type III Categorical Exclusion Action Classification Form

STIP Project No. U-5747

WBS Element 50167.1.1

Federal Project No. N/A

F. Project Impact Criteria Checklists:

<u>Type III Actions</u>		Yes	No
If the proposed improvement is identified as a Type III Class of Action answer all questions. <ul style="list-style-type: none"> The Categorical Exclusion will require FHWA approval. If any questions are marked “yes” then additional information will be required for those question in Section G. 			
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQP), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Type III Actions (continued)		Yes	No
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type III Actions (continued)		Yes	No
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Are there other issues that arose during the project development process that effected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

1. The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect." The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Wake County, where U-5747 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

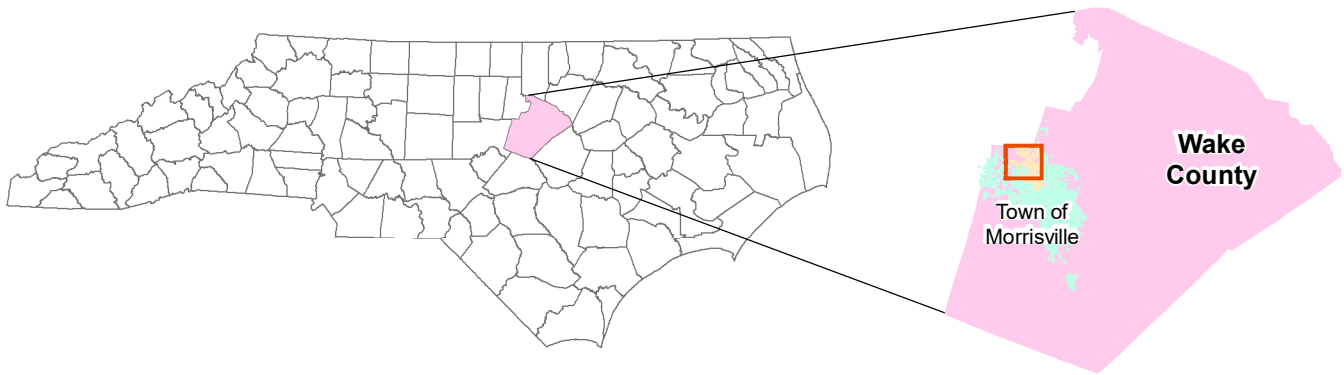
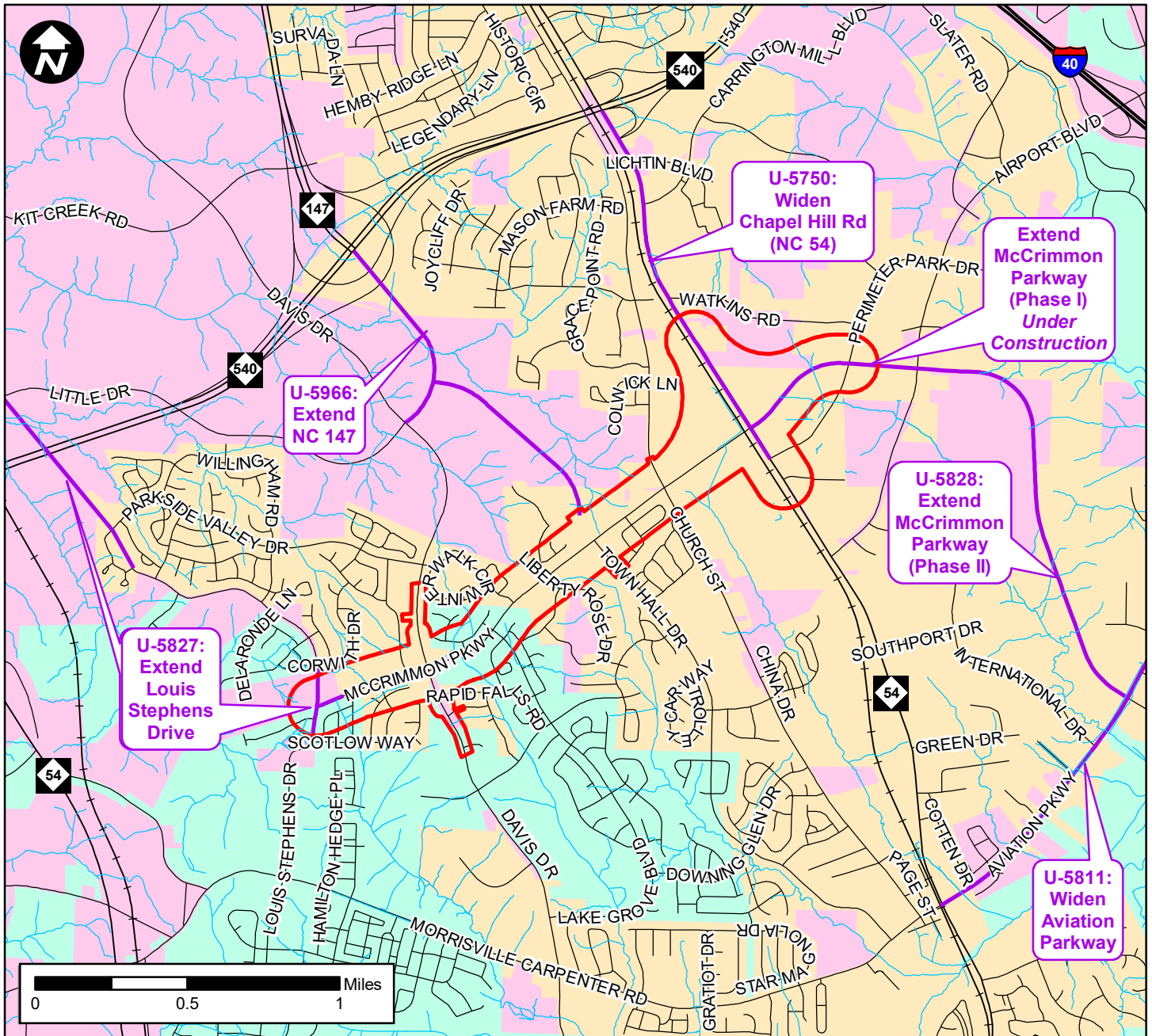
7. Direct, Indirect, or Cumulative Effects: The project will not notably alter travel patterns, reduce travel time, affect access to properties in the area, or open areas for development or redevelopment. Due to its minimal transportation impact-causing activities, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect effects study was not required. A cumulative effects study was developed in June 2016, which was a combined study with U-5750 (NC 54 improvements), U-5811 (Aviation Parkway widening), U-5828 (McCrimmon Parkway Phase 2), and Morrisville-Carpenter Road widening. Potential negative effects on community resources are possible.

10. Water Quality and Classification: The project area is located within the Neuse River and Jordan Lake basins and are therefore subject to riparian buffer rules. Based on a 25-foot slope stake buffer and a 50-foot buffer of delineated water features, the project is

anticipated to encroach into the buffers of two streams (SD and SA) and six wetlands (WB, WD, WG, WH, WI, and WJ). As the designs progress, a buffer mitigation plan will be provided to the NCDWR prior to approval of a Water Quality Certification.

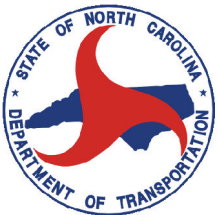
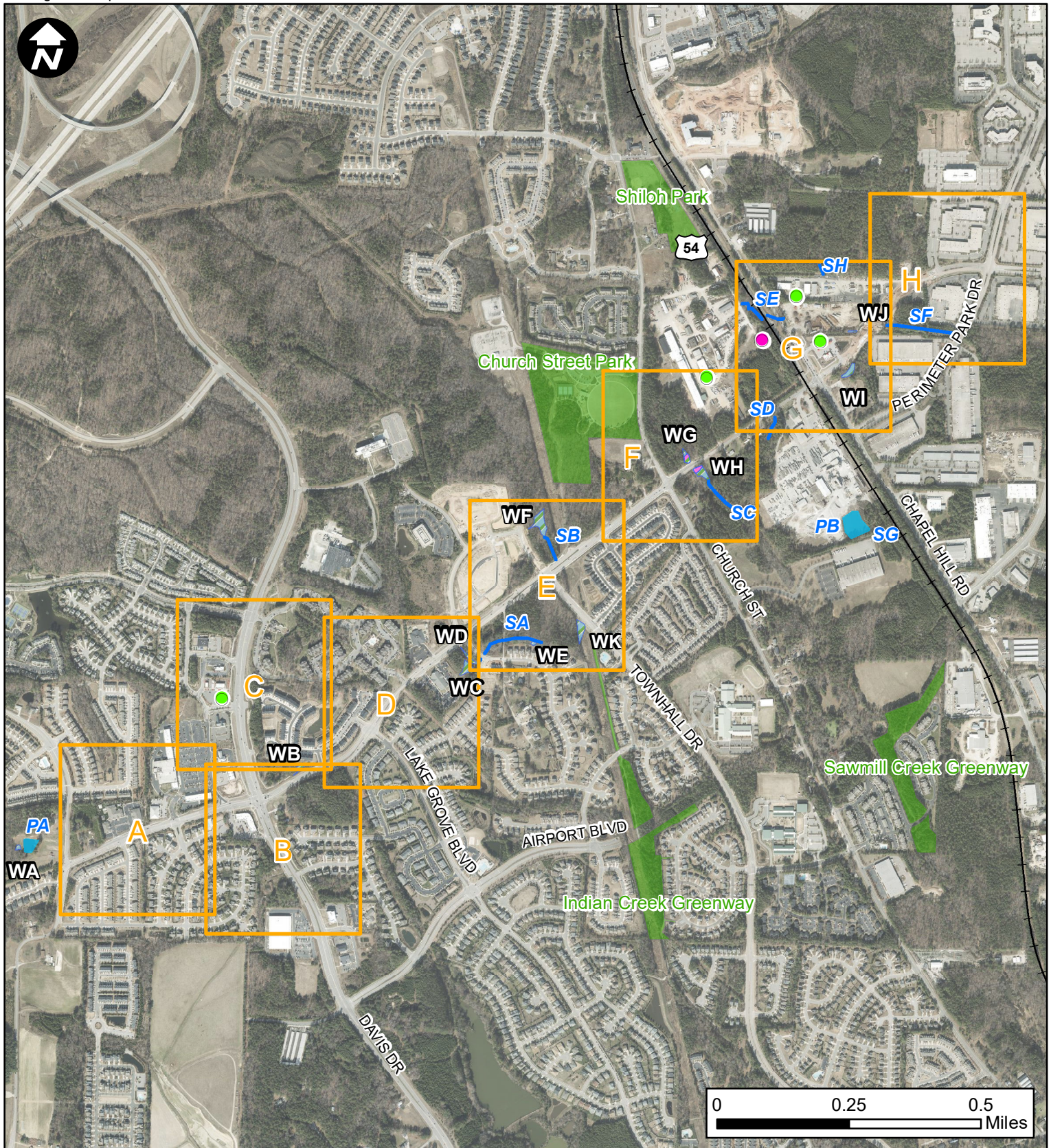
15. Hazardous Materials: The NCDOT GeoEnvironmental Section identified two Underground Storage Tank (UST) facilities and one superfund site which are anticipated to have potential for impacts.

22. Changes in Access Control: The proposed addition of a median will change the access to adjacent properties.



- Wake County Streams
- Adjacent Projects
- +— Railroad
- U-5747 Study Area
- Wake County
- Town of Morrisville
- Town of Cary

Figure 1
Project Vicinity
 TIP # U-5747
 McCrimmon Parkway
 Widening and Grade Separation
 Morrisville, Wake County



- Railroad
- Delineated Streams
- Delineated Ponds
- Delineated Wetlands
- Parks
- Superfund Site
- Underground Storage Tank
- Figures 2A-2H Extents

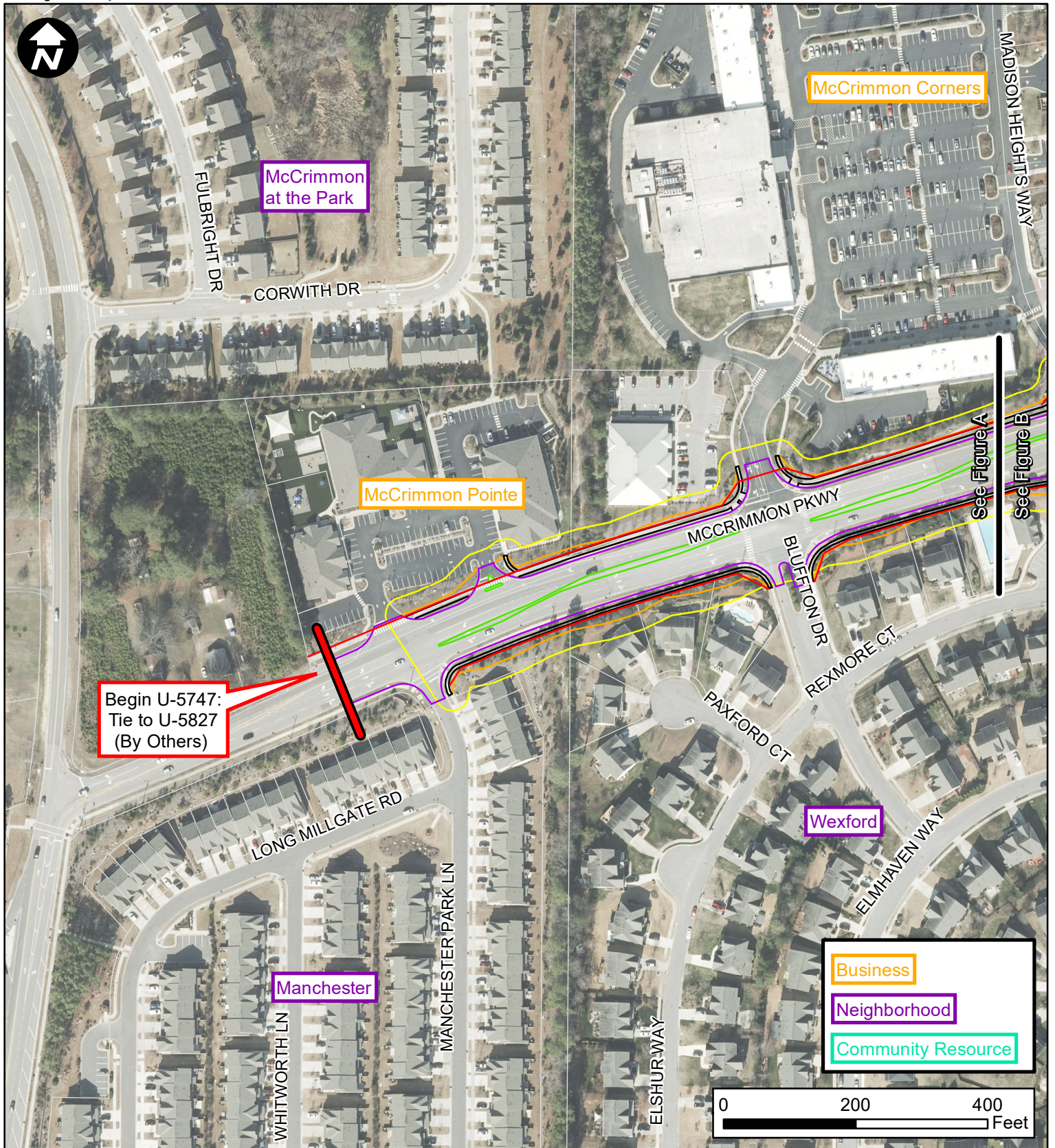
Figure 2
Environmental Features

TIP # U-5747

McCrimmon Parkway

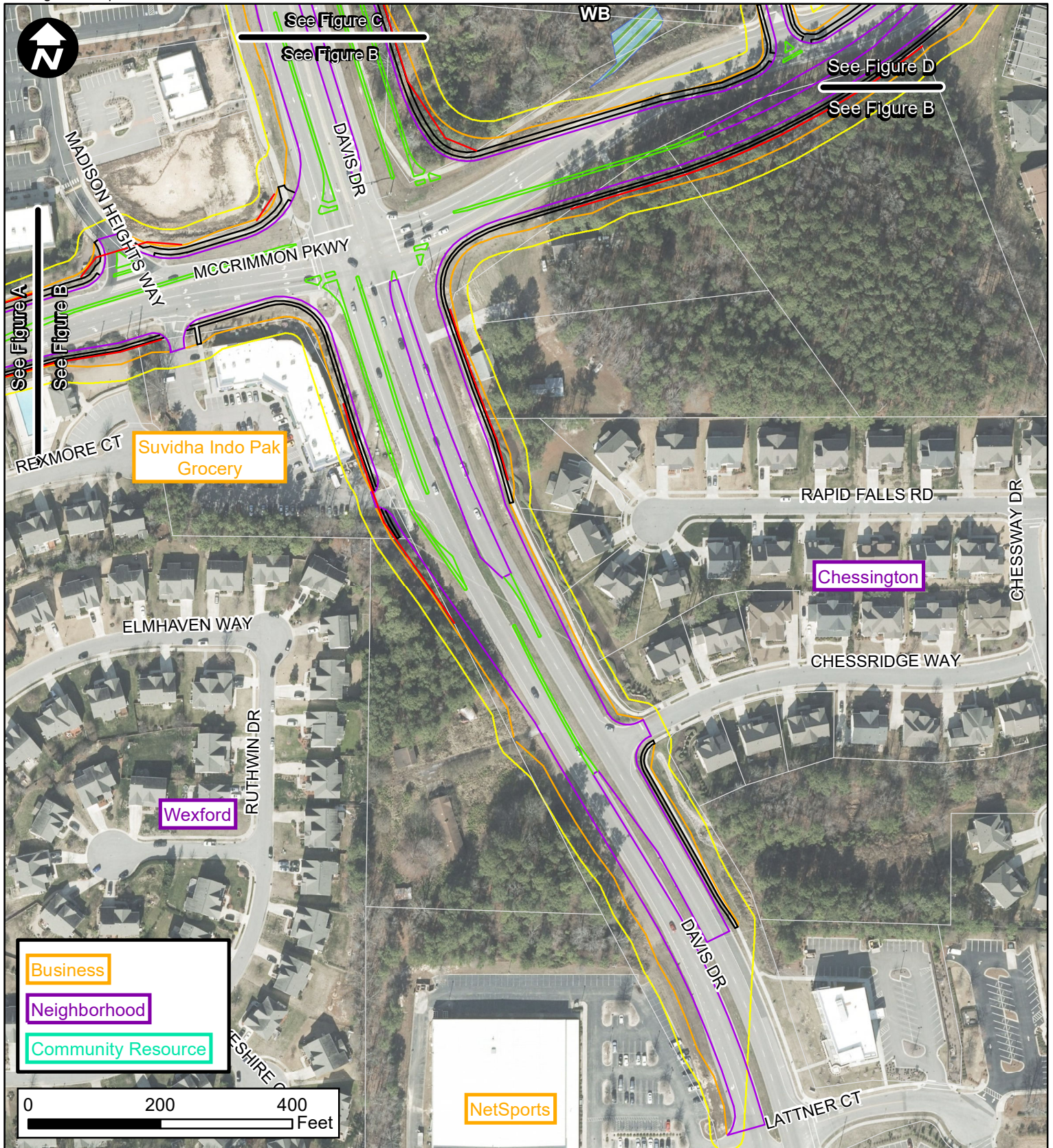
Widening and Grade Separation

Morrisville, Wake County



- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- 25' Slope Stakes Buffer

Figure 2A
Environmental Features
 TIP # U-5747
 McCrimmon Parkway
 Widening and Grade Separation
 Morrisville, Wake County

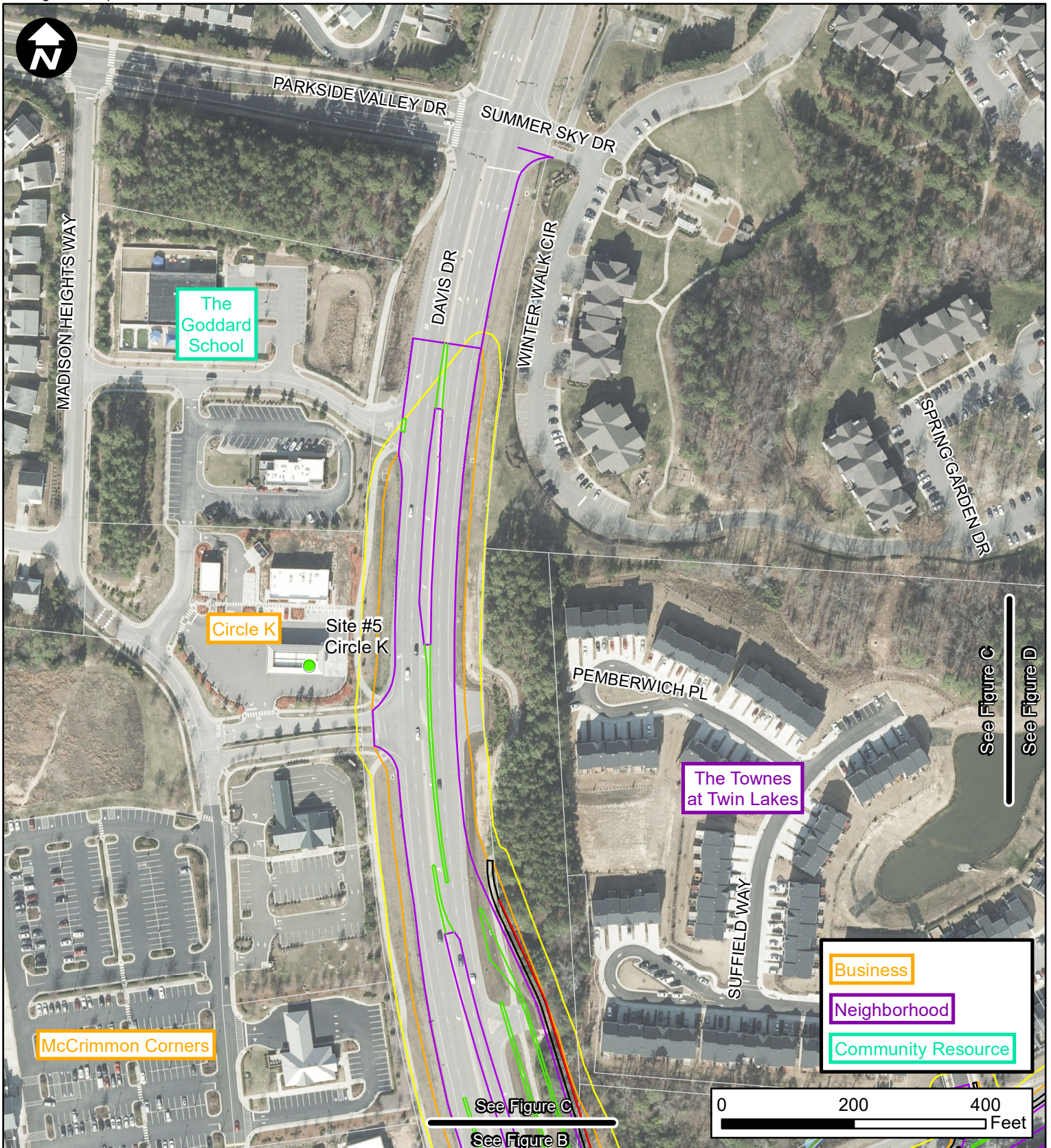


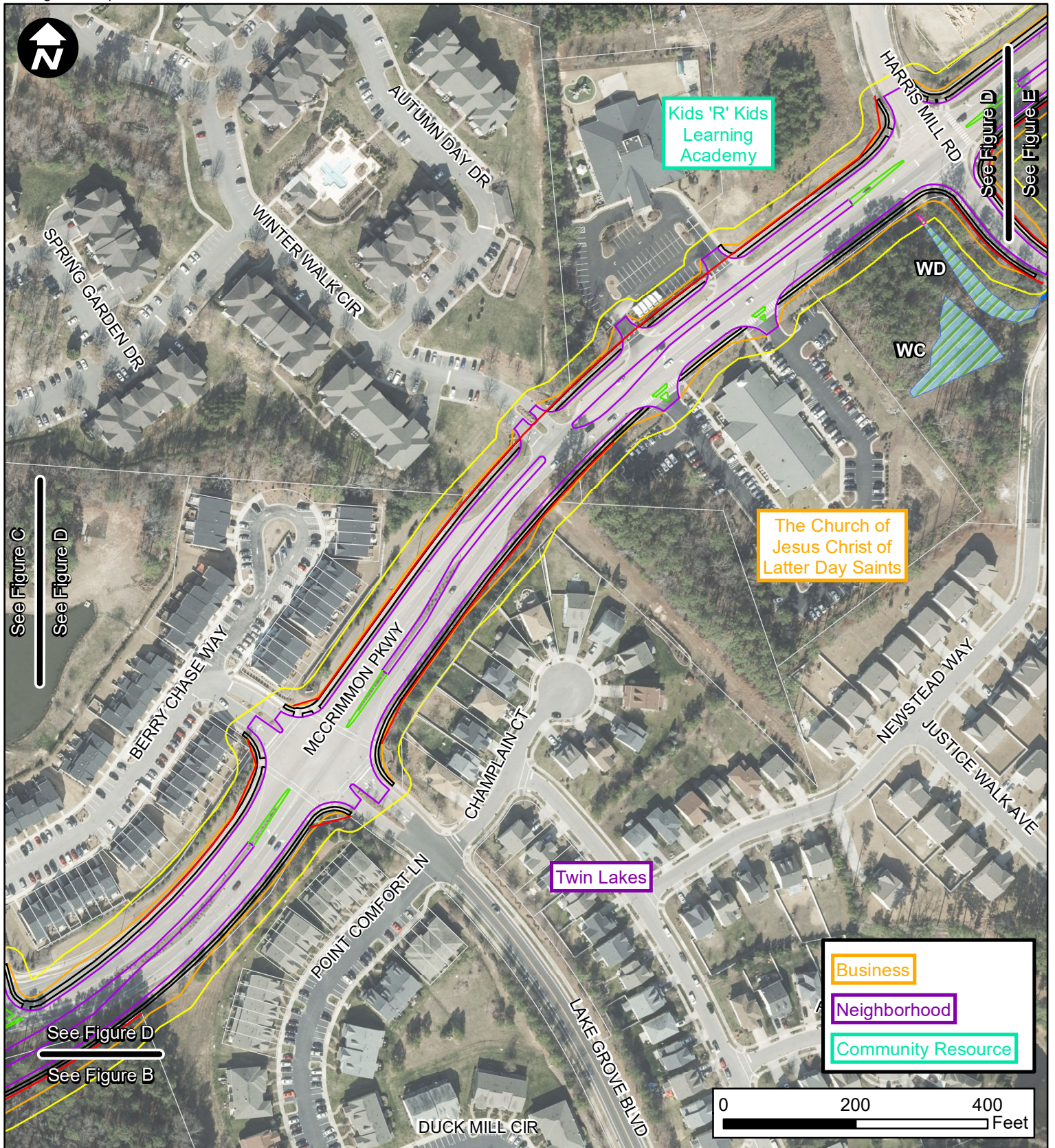
- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- Delineated Wetlands
- 25' Slope Stakes Buffer

Figure 2B Environmental Features

TIP # U-5747

McCrimmon Parkway
Widening and Grade Separation
Morrisville, Wake County



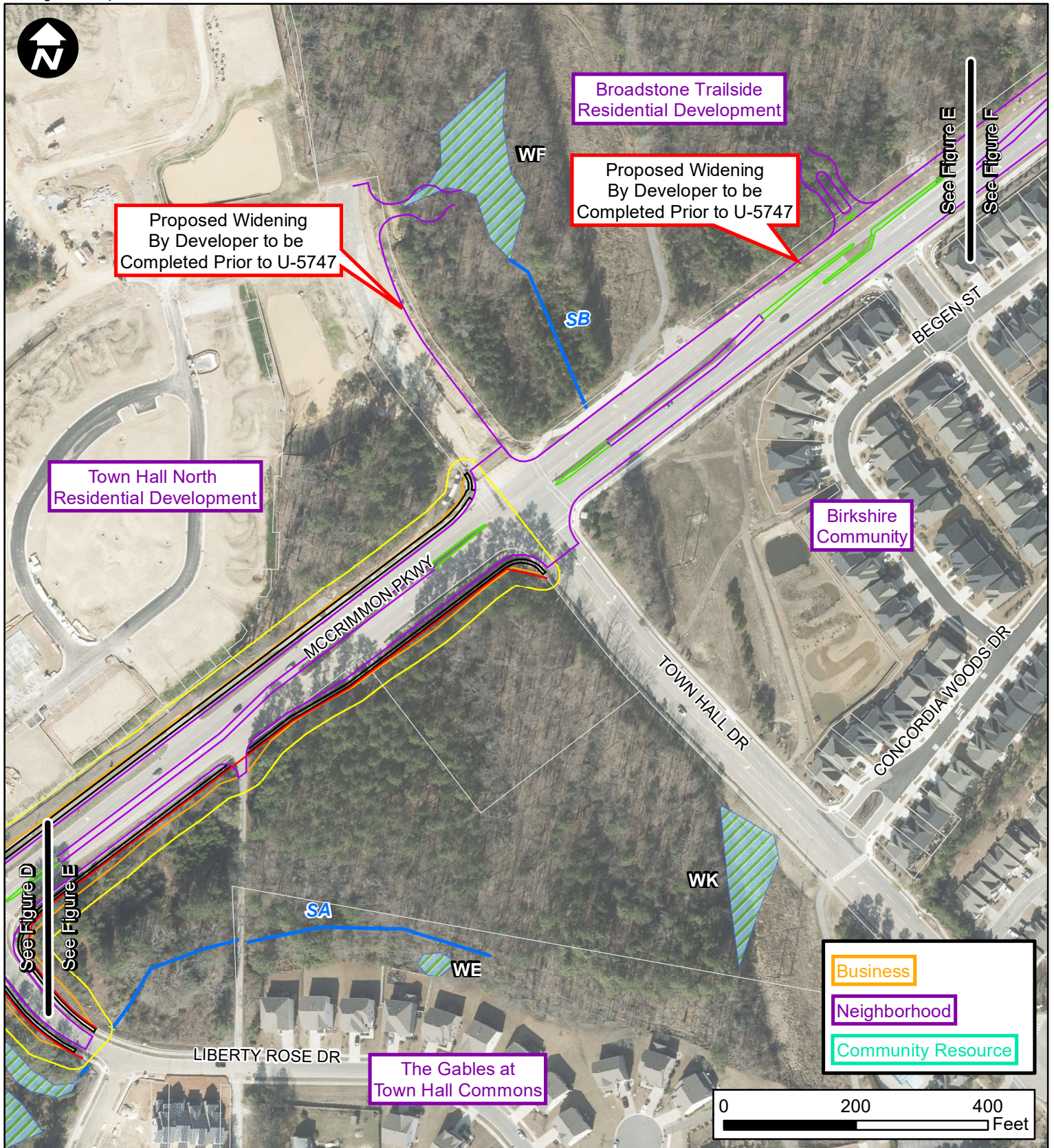


- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- Delineated Streams
- ▨ Delineated Wetlands
- ▨ Wetland Impacts
- ▨ 25' Slope Stakes Buffer

Figure 2D Environmental Features

TIP # U-5747

McCrimmon Parkway
Widening and Grade Separation
Morrisville, Wake County

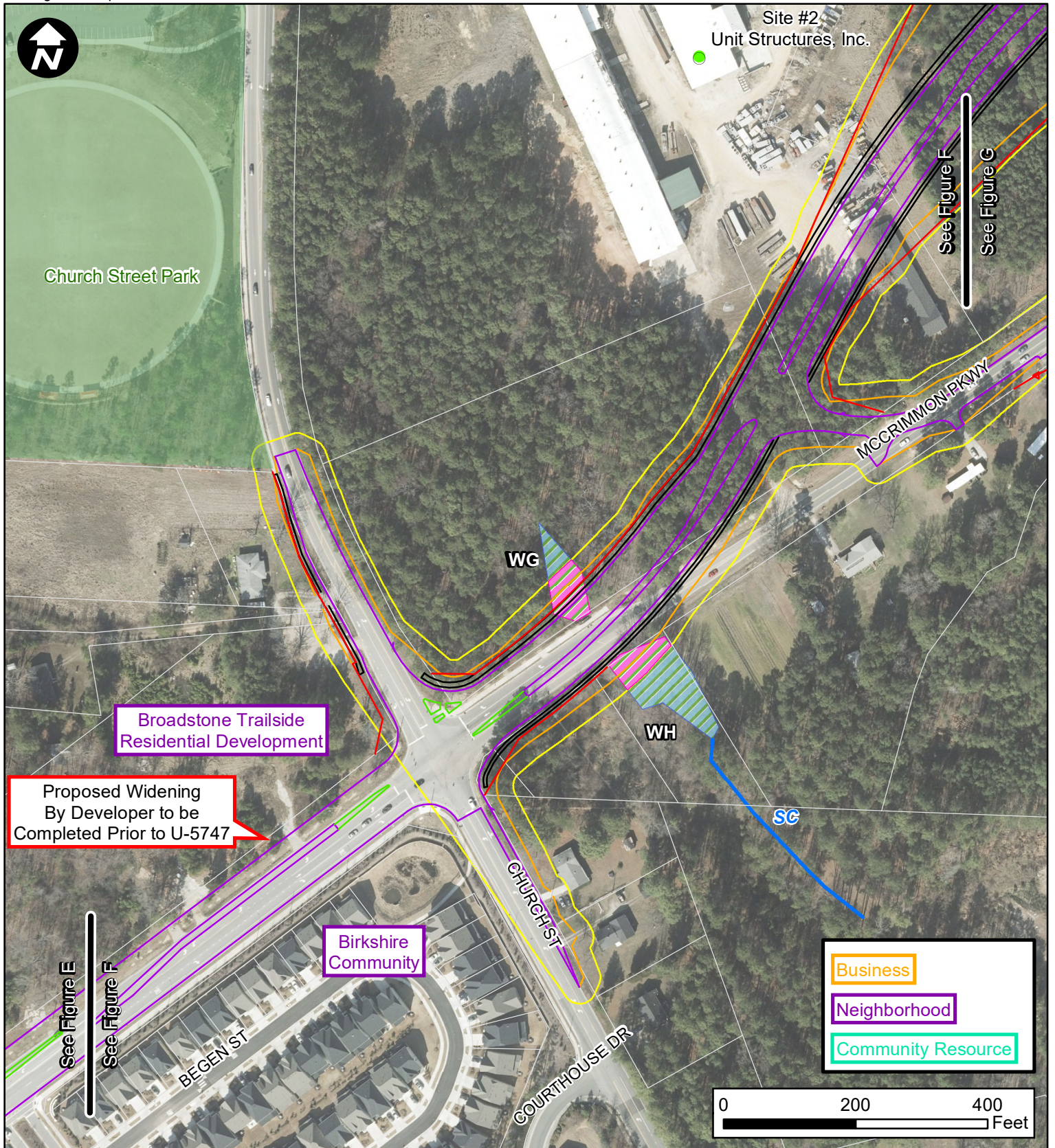


- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- Delineated Streams
- Delineated Wetlands
- 25' Slope Stakes Buffer

Figure 2E
Environmental Features

TIP # U-5747

McCrimmon Parkway
Widening and Grade Separation
Morrisville, Wake County

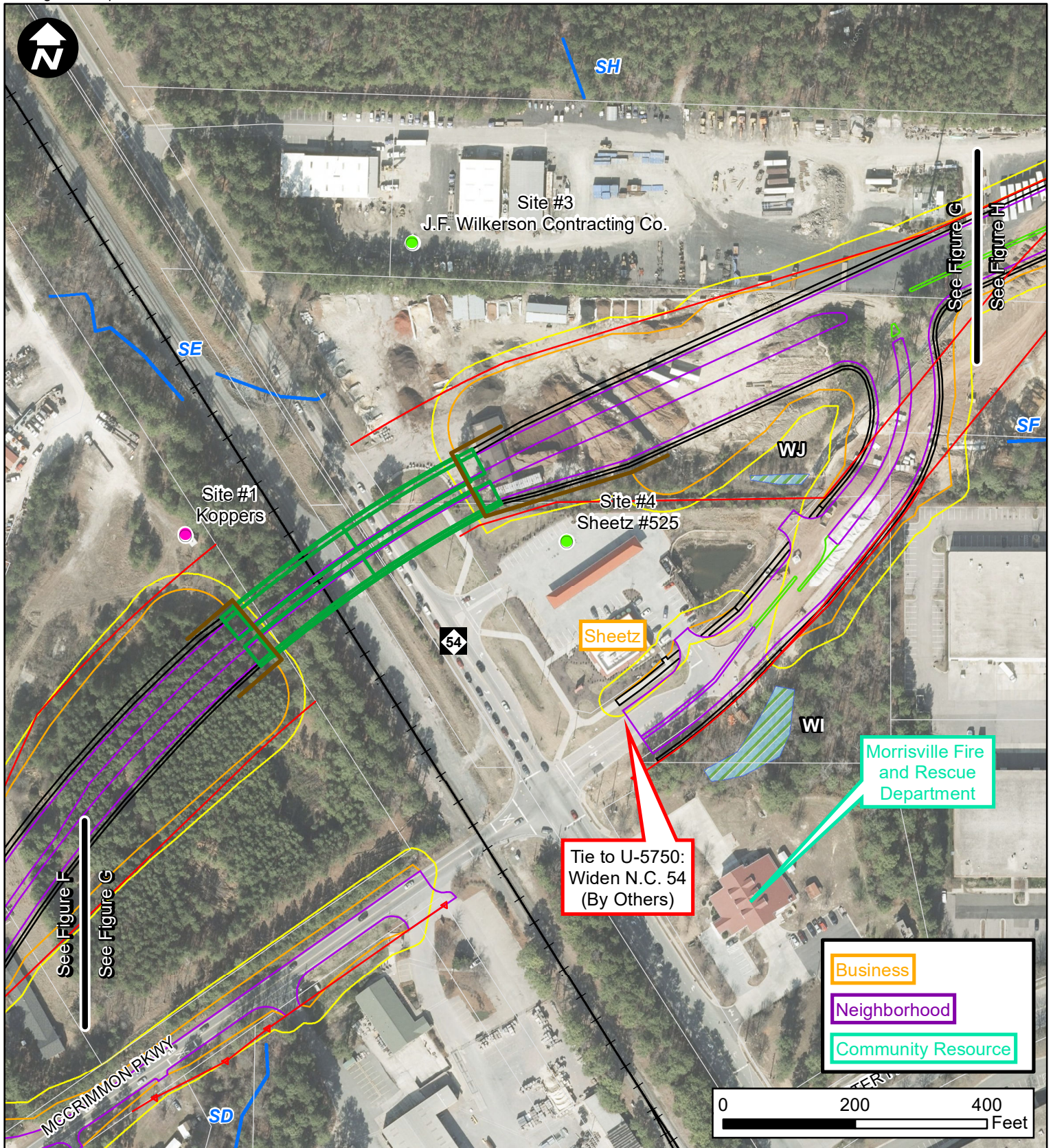


- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- Delineated Streams
- ▨ Delineated Wetlands
- ▨ Wetland Impacts
- ▨ Parks
- ▨ 25' Slope Stakes Buffer
- Underground Storage Tank

Figure 2F
Environmental Features

TIP # U-5747

McCrimmon Parkway
Widening and Grade Separation
Morrisville, Wake County

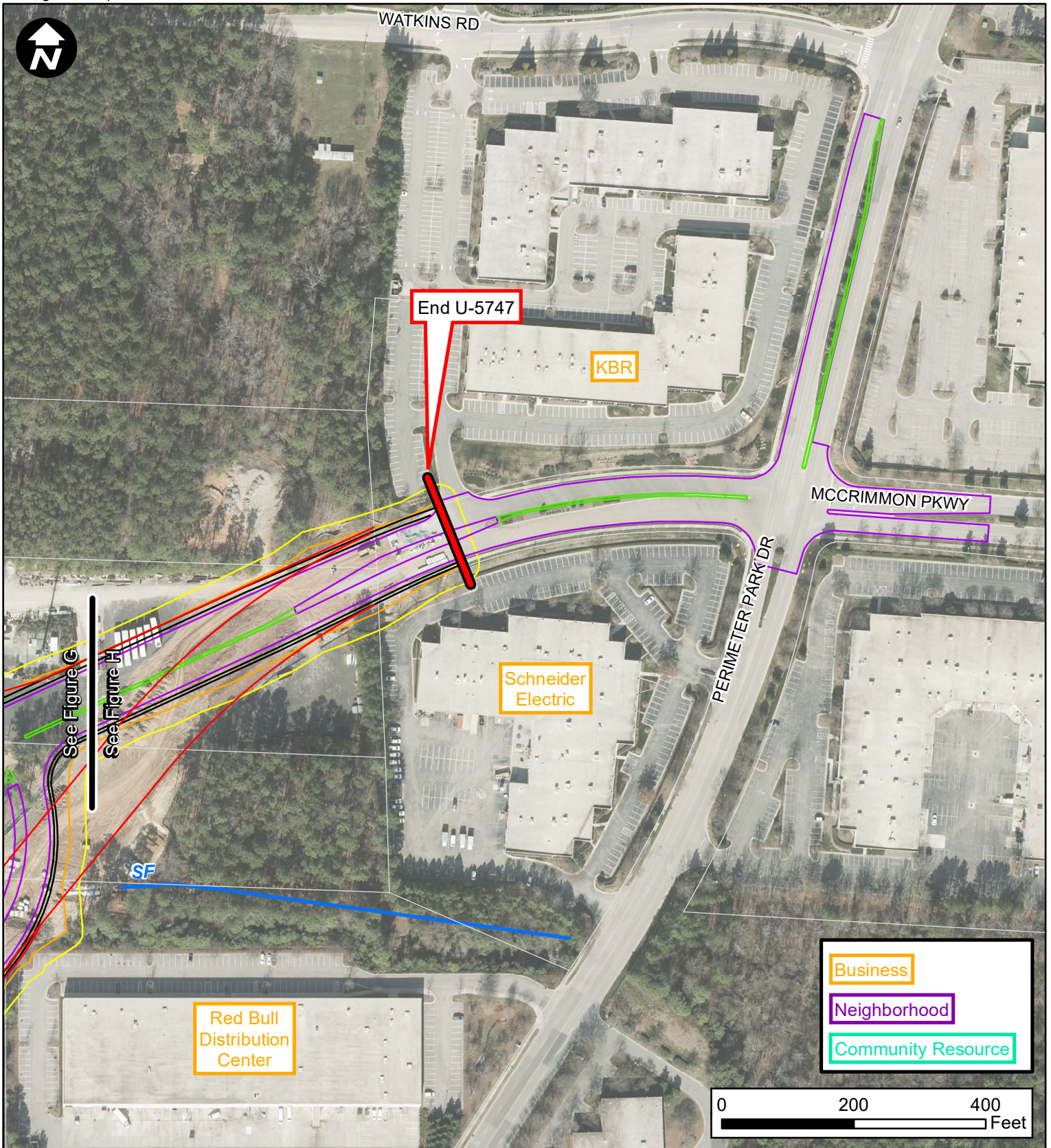


- | | |
|-----------------------------------|----------------------------|
| — Proposed Right of Way | — Existing Property Line |
| — Proposed Sidewalk | — Delineated Streams |
| — Proposed Concrete Median/Island | — Delineated Wetlands |
| — Proposed Edge of Travel | — 25' Slope Stakes Buffer |
| — Proposed Slope Stakes | ● Superfund Site |
| — Proposed Roadway Bridge | ● Underground Storage Tank |
| — Proposed Retaining Wall | |

Figure 2G
Environmental Features

TIP # U-5747

McCrimmon Parkway
Widening and Grade Separation
Morrisville, Wake County



- Proposed Right of Way
- Proposed Sidewalk
- Proposed Concrete Median/Island
- Proposed Edge of Travel
- Proposed Slope Stakes
- Existing Property Line
- Delineated Streams
- 25' Slope Stakes Buffer

Figure 2H
Environmental Features
 TIP # U-5747
 McCrimmon Parkway
 Widening and Grade Separation
 Morrisville, Wake County

17-07-0002



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PROJECT INFORMATION

Project No: **U-5747**

County: **Wake**

WBS No: **50167.1.1**

Document: **M C C**

F.A. No:

Funding: ☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No Permit Type: **nwp 14 / wqc 4135**

Project Description: REVISED for as a federal undertaking; Section 106 applies. NCDOT proposes to widen McCrimmon Parkway (SR 1635) from west of Davis Drive (SR 1613) to Church Street (SR 1637). A grade separation is also proposed across Chapel Hill Road (NC 54) and the Norfolk-Southern Rail Road. This is a state funded undertaking and though federal USACE permits (USACE NW 14 and WQC 4135) are anticipated. Updated design plans were available at the time of this review and the APE has been revised slightly to reflect more detailed information. This APE is shown below (See Figures 1 and 2). Overall the project length is about 11,000 feet (approximately 2.1 miles). Some new location is required on the eastern third of the project for the grade separation work where the APE will be wider (about 1000 feet) for the realignment and to avoid possible wetlands. Otherwise the study APE is about 200 feet in width.

This is a state funded and with federal permits and, therefore as a federal undertaking, falls under Section 106 of the National Historic Preservation Act for purposes of archaeological review.

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

McCrimmon Parkway is currently situated in a developed, urban setting according to USGS mapping (Durham South) (Figure 1) and modern aerial photography. Ongoing construction along this roadway is evident using Google Earth Pro to view aeriels over the past 30 years. Infrastructure is present throughout in the form of road improvements, sidewalks, utilities and and other upgrades that have majorly altered the natural landforms within the APE.

Google and Bing street view tools were used and confirm the generally developed nature of the margins of McCrimmon Parkway. Newly built projects have modified with entranceways, major landscape grading, and assesments up to the ROW. Few undeveloped or forested parcels remain. In the area of new location, the grade separation over NC 54, industrial sites appear in aerial photography to have greatly modified the terrain. Some of the project area may have already been expanded, widened to the proposed cross section already and may require little change.

Historic maps were examined to determine if any late historic structures, roads or other notations were present to help establish the a context of the recent past, especially farms, industry, land and transportation features which might offer hints to the presence of archaeological sites. The 1914 Soils Map of Wake County (MC.099.1914b) depicts SR 1635 in roughly the same location though with some variation and an endpoint near Church Street. Few other structures or other notable elements are present, and, as would be expected, the railroad was present over a hundred years ago in its same location. The USGS mapping also shows an earlier, now abandoned rail line near the location of the grade separation which would have been a spur line supporting industry.

17-07-0002

The Office of State Archaeology was visited to review archaeological mapping and to reference any known archaeological surveys and sites. Several environmental reviews cross the APE though few, if any, were recommended for archaeological survey. One site is recorded, the Carlton-Markham Cemetery (31Wa1641), at the northeast corner of McCrimmon Parkway and Church Street. Records with Wake County indicate that this cemetery was relocated to Oakwood Cemetery in Raleigh around 2008 and is no longer present as an archaeological resource. According to USGS mapping, other GIS sources and NCDOT cemetery data maintained by Paul Mohler, no other cemeteries are recorded within the APE.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

Much of the APE has been modified by modern development, especially installation of roadways, utilities, sidewalks on residential and industrial parcels. The probability for intact soils is low, as would be undisturbed, significant archaeological sites. The new location grade separation crossing of NC 54 and the railroad passes through already modified, industrial sites, including possibly an earlier light rail spur.

There are no known, recorded archaeological sites presents. Site 31Wa1641, a cemetery mapped within the APE, has been removed for a decade. There are no NRHP archaeological sites present. It is unlikely that significant, intact archaeological remains would be present and impacted by the project. For archaeological review, this state funded undertaking should be considered compliant with Section 106.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☐ Photos ☐ Correspondence
☐ Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



NCDOT ARCHAEOLOGIST

REVISED 12/18/2018

Date

17-07-0002

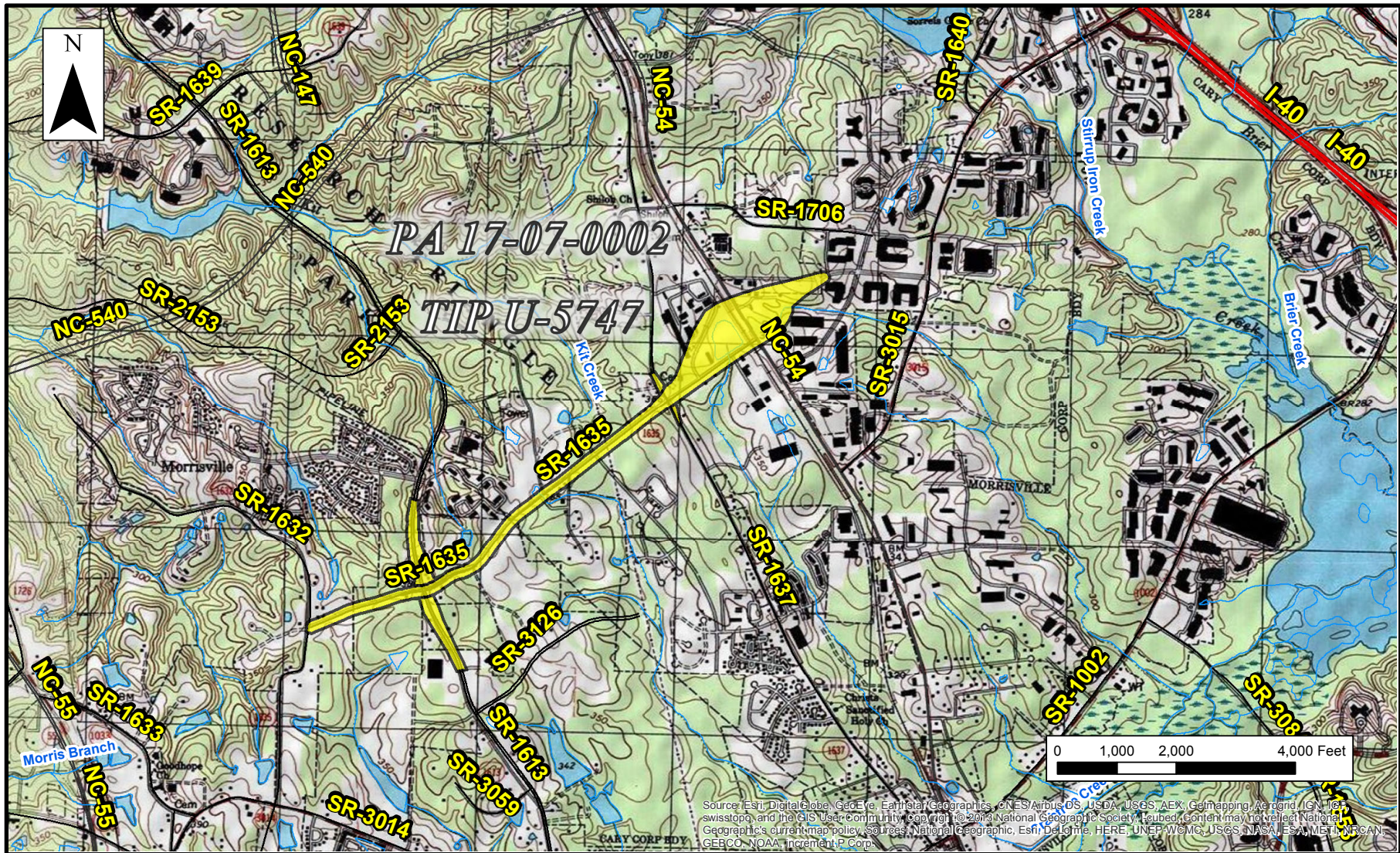


Figure 1. Vicinity of TIP # U-5747, PA 17-07-0002, the proposed widening of McCrimmon Parkway and Grade Separation over NC 54/RR in Morrisville, Wake County. Note the spur rail off the RR near NC 54.

17-07-0002



Figure 2. Aerial map of U-5747, PA 17-07-0002, the proposed widening of McCrimmon Parkway and Grade Separated crossing of NC 54/RR. The approximate APE is shown in yellow. The marked cemetery within the APE (inscribed triangle within green circle) was relocated a decade ago and is considered no longer present. Note the degree of development.

17-07-0002

Revised

HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form supercedes that dated 3 August 2017

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	U-5747	County:	Wake
WBS No.:	50167.1.1	Document Type:	
Fed. Aid No:		Funding:	X State Federal
Federal Permit(s):	X Yes No	Permit Type(s):	USACE NWP 14 and WQC 4135

Project Description: Widen SR 1635 (McCrimmon Parkway) from west of SR 1613 (Davis Drive) to north of SR 1637 (Church Street) and create grade separation across NC 54 (Chapel Hill Road) and the Norfolk Southern Railroad in Morrisville (no off-site detour specified in review request). **Addition of federal permits and slight expansion of study area required additional review for Section 106 compliance.**

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 3 August 2017 and 19 December 2018 and yielded no NR, SL, SS, LD, or DE properties in the Area of Potential Effects (APE). Wake County current GIS mapping, aerial photography, and tax information indicated a developed APE with residential and commercial resources dating predominantly to the 2000s and 2010s (viewed 3 August 2017 and 19 December 2018). Also present are a 2009 church and two residential resources dating to the first half of the twentieth century (both unexceptional examples of their types). The Carlton-Markham Cemetery (state archaeological site 31WA1641**), originally in the NE quadrant of the McCrimmon Parkway/Church Street intersection (PIN: 0746721255), was relocated around 2008 and is no longer present in the project area. Google Maps "Street View" confirmed the absence of critical architectural and landscape resources in the APE (viewed 3 August 2017 and 19 December 2018).

No architectural survey is required for the project as currently defined.

WHY THE AVAILABLE INFORMATION PROVIDES A RELIABLE BASIS FOR REASONABLY PREDICTING THAT THERE ARE NO UNIDENTIFIED SIGNIFICANT HISTORIC ARCHITECTURAL OR LANDSCAPE RESOURCES IN THE PROJECT AREA:

APE equates with the original 2017 study area with the addition of a 100-foot buffer around new Y-line improvements on SR 1613 (Davis Drive) and SR 1637 (Church Street) (see attached maps). The county architectural surveys (1988-91 and 2005-6) and related publication, as well as later studies, recorded no properties in the APE (Kelly Lally, *The Historic Architecture of Wake County, North Carolina* (Raleigh: Wake County Government, 1994)). County GIS/tax materials and other visuals support the absence of significant architectural and landscape resources. No National Register-listed or -eligible properties are located within the APE. The project as currently defined is compliant with both GS 121-12(a) and Section 106.

Should the project limits or design change, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

X Map(s) ☐ Previous Survey Info. ☐ Photos ☐ Correspondence ☐ Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Vanessa C. Patrick

19 December 2018

NCDOT Architectural Historian

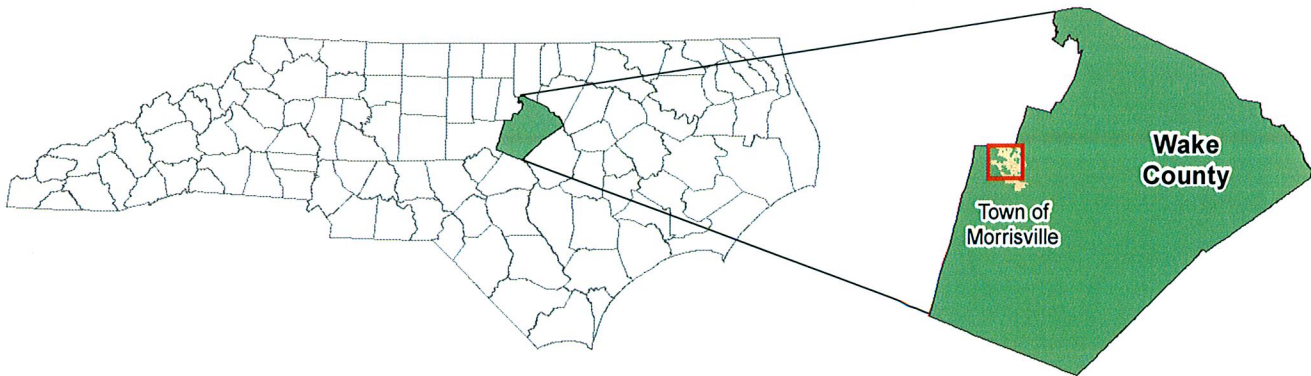
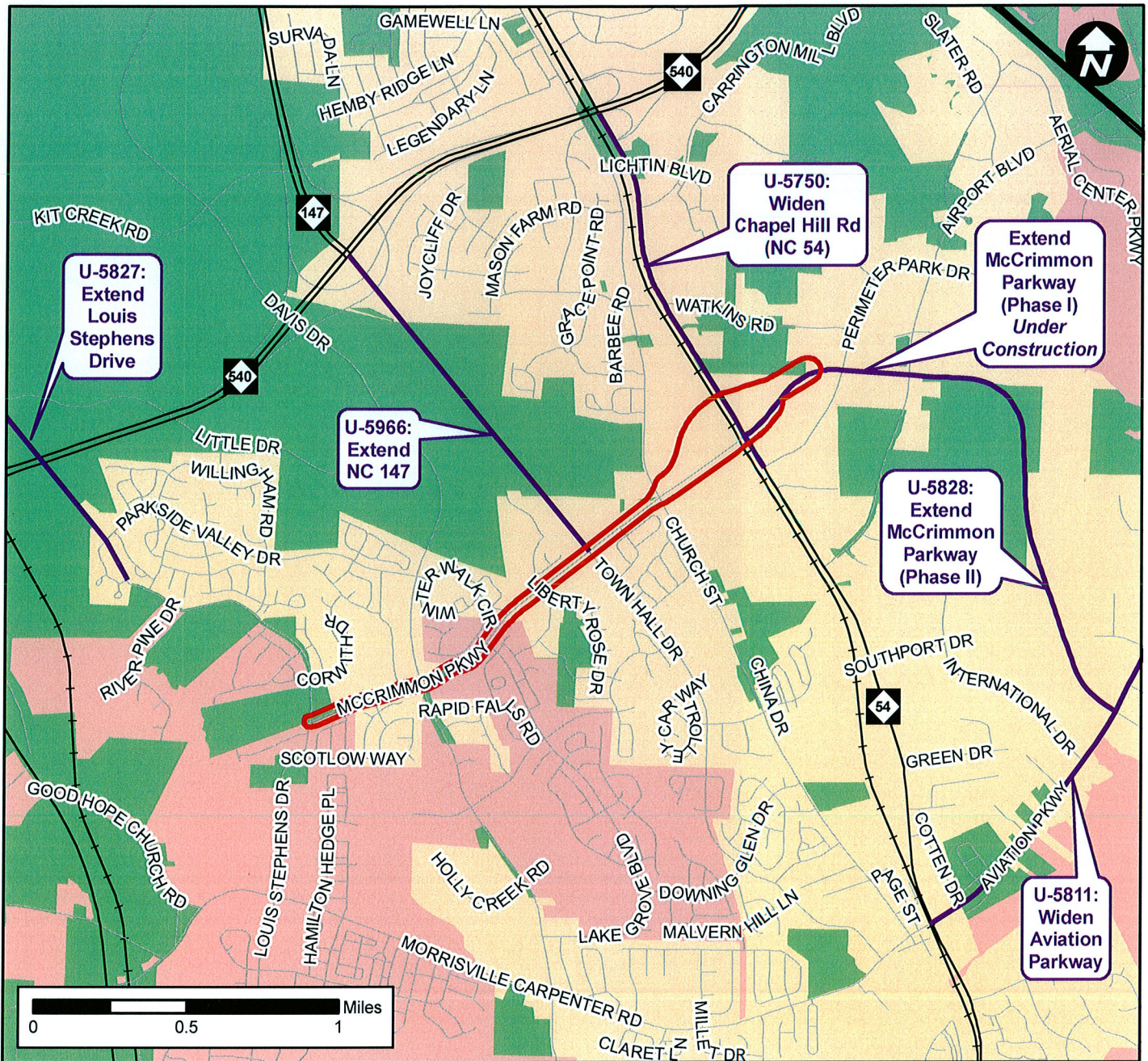
Date

U-5747, Wake County

WBS No. 50167.1.1

Revised

PA Tracking No. 17-07-0002

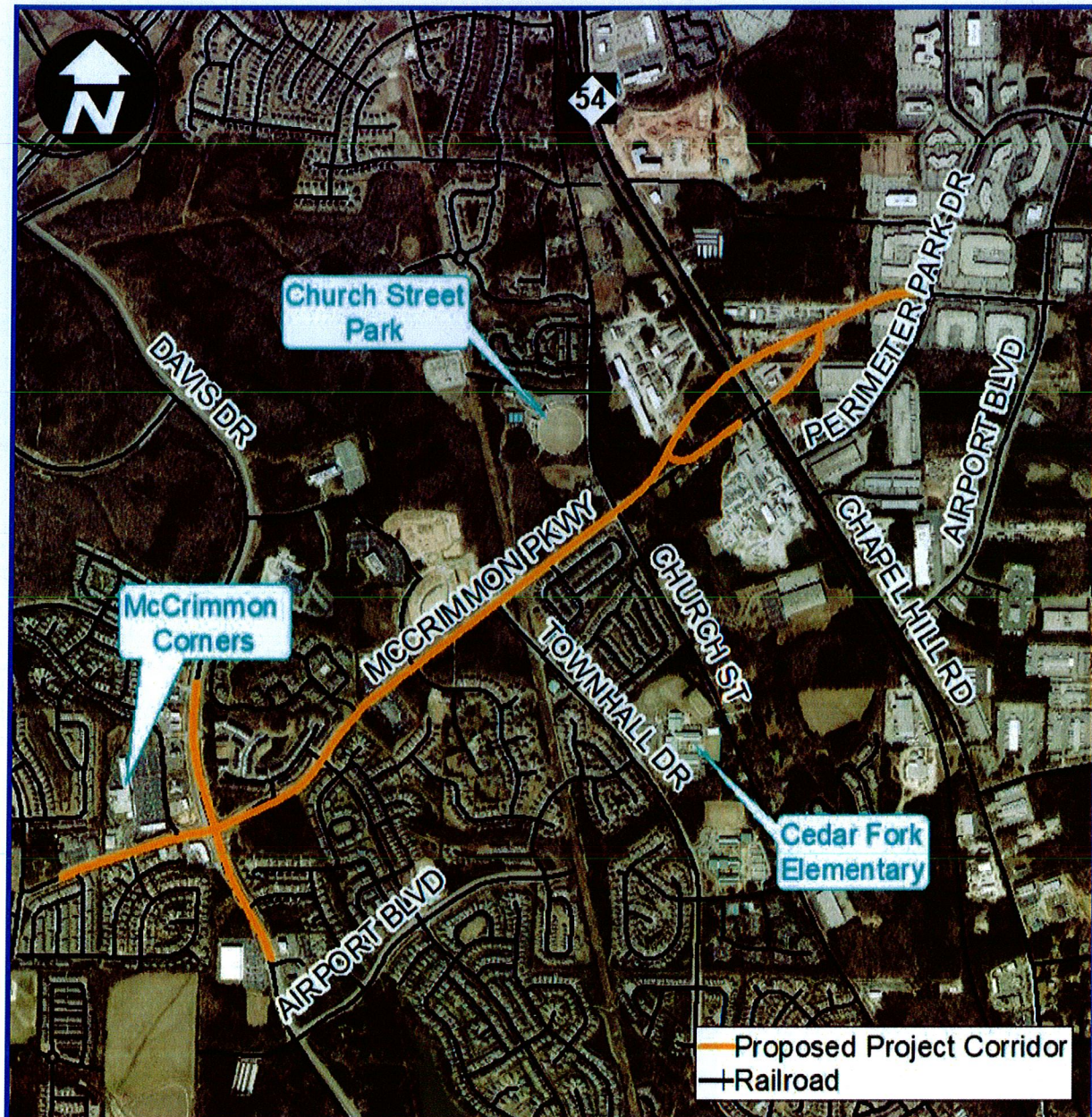


- Original 2017 Project Study Area
- Adjacent Projects
- Railroad
- Wake County
- Town of Morrisville
- Town of Cary

Figure 1
Project Vicinity
TIP # U-5747

McCrimmon Parkway Improvements
and Grade Separation
Morrisville, Wake County, NC

Tracking No. 17-07-0002



U-5747

WBS No. 50167.1.1
2018 Project Corridor

Wake County

